Teksty Drugie 2016, 2, s. 242-261
Special Issue – English Edition

Digital Literature. Current State of Research in Poland

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DOI: 10.18318/td.2016.en.2.16

The internet age in Poland began on 17 April 1991 when the first email was sent from the Institute of Physics at the University of Warsaw to Copenhagen.[1] Nobody then could have foreseen the intensive development of new media[2] that would ensue in the country over the next two decades, impacting socio-cultural changes and creating new forms of expression in art[3]

1 The timeline of events are: Polish internet available at http://kalendarium.icm.edu.pl/, accessed April 2, 2014.

2 I understand new media as meaning digital media introducing changes in the textual experience, ways of representing the world, relations between subjects (users and consumers), experience of relations between corporality, identity and community, concepts concerning the relationship of the biological body with technological media and patterns of organization and production. Martin Lister, Jon Dovey, Seth Giddings, Iain Grant and Kieran Kelly, *New Media. A Critical Introduction* (Abingdon: Routledge, 2003), 12-13. Among their characteristics are numerical representation, modularity, automation, variability and transcoding, Lev Manovich, *The Language of New Media* (Cambridge, MA: MIT Press, 2002), 27-48.

3 See Ryszard W. Kluszczyński, *Społeczeństwo informacyjne. Cyberkultura. Sztuka multimediów* (Kraków: Rabid, 2002); Ewa Wójtowicz, *Net art* (Kraków: Rabid, 2008); Ryszard W. Kluszczyński, *Sztuka interaktywna. Od dzieła instrumentu do interaktywnego*

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and theatre.[4] As Maryla Hopfinger rightly notes, literature as a partner of contemporary transformations[5] has become the focus of experimental, new-media textual research, in a semiotic and structural context and from the perspective of market and communications possibilities.

In 1999, Zenon Fajfer introduced the term "liberature,"[6] followed in 2002 by the appearance of the neolinguists' manifesto;[7] Piotr Siwecki published the avant-pop[8] *BIOS* (2002), and then *Hyper-Gender* (2003). In 2002 Piotr Marecki coined the notion "liternet,"[9] and the first Polish hypertext novel, Sławomir Shuty's *Blok*, was published.[10] There are many links between these events resulting from observations of the growing role of new technologies: a break in linear textual conventions, galvanized literary communication in

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spektaklu (Warszawa: Wydawnictwa Akademickie i Profesjonalne, 2010); *Digitalne dotknięcia. Teoria w praktyce/Praktyka w teorii*, ed. Piotr Zawojski (Szczecin: Stowarzyszenie Make It Funky Production, 2010); *Sztuki w przestrzeni transmedialnej*, ed. Tomasz Załuski (Łódź: Akademia Sztuk Pięknych, 2010); Piotr Zawojski, *Cyberkultura. Syntopia sztuki, nauki i technologii* (Katowice: Wydawnictwo UŚ, 2012).

4 See Małgorzata Ćwikła, "Kultura 2.0: software teatru," *Dwutygodnik.com* 94 (2012), accessed April 3, 2014, http://www.dwutygodnik.com/artykul/4046-kultura-20-software-teatru.html; Agnieszka Jelewska and Michał Krawczak, *void setup [text ['] to code or not to code? Teatr i kreatywne programowanie']* 2013, accessed April 3, 2014 http://www.nina.gov.pl/kultura-2_0/tematy/ artyku%C5%82y/artyku%C5%82/2013/02/28/void_setup_text_to_code_or_not_to_code_teatr_i_kreatywne_programowanie

5 Maryla Hopfinger, "Zmiana miejsca?," in *Co dalej literaturo? Jak zmienia się współcześnie pojęcie i sytuacja literatury*, ed. Alina Brodzka-Wald, Hanna Gosk, Andrzej Werner (Warszawa: Wydawnictwo IBL PAN, Fundacja Akademia Humanistyczna, 2008), 164.

6 See Zenon Fajfer, "Liberature: Hyperbook in the Hypertext Era," in *Liberature. Or Total Literature*, trans. and ed. Katarzyna Bazarnik (Kraków: Korporacja Ha!art, 2010), -9--1; Zenon Fajfer, "Liberatura. Aneks do słownika terminów literackich," in *Tekst-tura. Wokół nowych form tekstu literackiego i tekstu jako dzieła sztuki*, ed. Małgorzata Dawidek Gryglicka (Kraków: Korporacja Ha!art, 2005), 11-22.

7 Marcin Cecko, "Manifest Neolingwistyczny v. 1.1," in *Gada !zabić? pa]n[tologia neolingwizmu*, ed. Maria Cyranowicz, Paweł Kozioł (Warszawa: Staromiejski Dom Kultury, 2005), 158-159.

8 See "Część Avant-pop," in *Literatura polska 1989-2009. Przewodnik*, ed. Piotr Marecki (Kraków: Korporacja Ha!art, 2010), 219-255.

9 *Liternet. Literatura i internet*, ed. Piotr Marecki (Kraków: Rabid, 2002).

10 Sławomir Shuty, *Blok*, Mariusz Pisarski (preparation), Piotr Marecki (development), Marcin Maciejowski (drawings), 2002, accessed April 4, 2014, http://www.blok.art.pl/. See Mariusz Pisarski, "Kartografowie i kompilatorzy. Pół żartem, pół serio o praktyce i teorii hiperfikcji w Polsce," in *Liternet.pl*, 19-20.

the internet, building bonds with readers, independence from publishers thanks to online publication and the availability self-publishing. Yet each of these initiatives has explored different subversive strategies[11] aiming for more profound changes in contemporary literature and literary communication when it comes to production and market rules.[12] Liberature is characterized by a rejection of the traditional book format as well as limited print runs in favor of publications prepared by the authors themselves. The neolinguists, known as the Warsaw Internet Scene,[13] demonstrated the death of the sheet of paper and in doing so raised the status of virtual space; they proclaimed the liberation of literary tradition from copyright laws while using "para-computer"[14] and remix techniques in poetry. Avant-pop, for which Siwecki was the flagbearer in Poland, means using the spoils of media culture in order to expose the way in which mass media works. Siwecki's niche productions demonstratively reject the publishing market, making use of remix and plagiarism methods.[15] Hypertext, meanwhile, has become a symbol of literature's incursion into the digital world, reformulating previous literary categories, changing writer–reader relations and omitting publishing procedures by making works available for free online. Marecki describes the rules of subversion and writes that what is "at stake is not only a change in aesthetics and poetics, but an attack on the fundamental indicators of the market, like the size of the print run, a radical approach to copyright, and opposition to paper editions."[16]

The 2002 book *Liternet*[17] began the discussion on the connections between literature and the internet in Poland, which was followed in subsequent years by the gradual development of hypertext literature and cybernetic poetry.[18]

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11 See Łukasz Ronduda, *Strategie subwersywne w sztukach wizualnych* (Kraków: Rabid, 2006).

12 Piotr Marecki, "Strategie subwersywne w literaturze polskiej po 1989 roku," *Teksty Drugie* 6 (2012): 314.

13 See Piotr Czerski, Ewa Wójtowicz, Mariusz Pisarski, *Ha!art* 3 (2003): 135-136.

14 On para-computer procedures, see Ewa Szczęsna, "Digitalne reinterpretacje sztuki," in *e-polonistyka 2*, ed. Aleksandra Dziak, Sławomir Jakub Żurek (Lublin Wydawnictwo KUL, 2012), 63-67.

15 Marecki, "Strategie subwersywne," 316-319.

16 Ibid., 323.

17 *Liternet. Literatura i internet*.

18 For a chronological description of the most important events: Urszula Pawlicka, "Krótka historia nowych światów – podsumowanie dziesięciu lat literatury nowomedialnej w Polsce," *Lampa* 1-2 (2012): 16-21.

Yet attempts to "catch up with the West," where the "era of Story Space"[19] had started in 1987, clashed with a sceptical reception, unready for challenging the traditional rules of literature and undermining the status of the book.[20] Elitism came into conflict with egalitarianism, hierarchy with participation, and copyright with copyleft. The reasons for the incorrect diagnoses of literary and cultural activities in the digital space were: 1) inappropriate evaluating of new forms using the old rules by which literature functioned; 2) assessing projects solely from an aesthetic and structural perspective, leading to conclusions that traditional forms could be repeated; and 3) an enduring attachment to the book as a material medium associated with a "snobbish, exclusive form of entertainment."[21]

The book as a medium, alluding to the McLuhanian principle whereby the medium is the message, determines the reception of a text, as it is linked to an entire socio-cultural system. Researchers have described the cultural changes taking place under the influence of the media by pointing to the differences between print culture and digital culture conspicuous in people's consciousness when it comes to communication and in the social system.[22] From the onset, print culture determined the distance between the author and reader, and between the reader and text; such a culture created a universal perception, a "relational style of thinking [involving] high communicative competence."[23] Books became a symbol of the intelligible and friendly world,

19 A term used by Andrzej Pająk in his article "Litteratura cybernetica, czyli burza w szklance Wody," *Dekada Literacka* 1/2 (2010): 33.

20 See Tadeusz Dąbrowski, *Poezja w erze Wodnika*, 2002, accessed April 3, 2014, http://www.fa-art.pl/archiwum/wersja1/09021.php, Adam Krzemiński, "Napisz – wydrukuj – wklej," *Polityka. Niezbędnik inteligenta (wydanie specjalne)* 1 (2011): 85; Milada Jędrysik, Wojciech Orliński, "Spór o elektroniczne książki i przyszłość papieru," 2012, accessed April 4, 2014, http://wyborcza.pl/1,123455,11277567,Spor_o_elektroniczne_ksiazki_i_przyszlosc_papieru.html; Marek Adamiec, "Dzieło literackie w sieci. Kilka oczywistości z perspektywy sceptyka," in *Tekst (w) sieci*, ed. Danuta Ulicka, vol. 1 (Warszawa: Wydawnictwa Akademickie i Profesjonalne, 2009), 37-47. The quintessence of the ongoing discourse on the struggle between old and new forms is the *FA!art* issue on the bibliocaust, whose name implies the annihilation of books in the style of the Holocaust, *FA!art* 1/2 (2011).

21 Statement by Krzysztof Uniłowski in the editorial discussion "Literatura a nowe media," *Dekada Literacka* 1/2 (2010): 9.

22 Grzegorz Godlewski, *Słowo – pismo – sztuka słowa. Perspektywy antropologiczne* (Warszawa: Wydawnictwo UW, 2008), 285. See Maryla Hopfinger, *Literatura i media po 1989 roku* (Warszawa: Oficyna Naukowa, 2010), 15-45.

23 Maryla Hopfinger, *Doświadczenie audiowizualne. O mediach w kulturze współczesnej* (Warszawa: Sic!, 2003), 24.

a sign of social order, permanence and logic.[24] The mythical image of the world was destroyed by the appearance of new technologies, and with them the development of a digital culture that assumed a participatory role for its users in creating media, as well as a fragmentary and non-linear reception. Hypertext was seen as a way of deforming reality and the sense of hierarchy, not to mention the logicality of the world; it was supposed to reflect the belief in the accidental and virtual nature of the world and the separability of phenomena.[25]

Remediation,[26] or the reshaping of previous media forms through newer media, means not only a change in medium, but also a whole process of socio-cultural transformations. The hypertext theoretician George P. Landow notes that only with the development of visual media did the book come to be regarded not only as a carrier of a message, but also as a medium shaping the whole field of social communication.[27] Change in medium also means a change in the system,[28] that is to say a systemic change takes place together with the change in medium. Viewed in this way, a socio-cultural revolution cannot take place via a material book, since it refers to the order of print culture. For the neolinguists' programme to be fulfilled, a change in the form of transmission and medium was required. On the other hand, there are doubts as to how "turbulent" liberature is in its conventionality, as it is strongly entrenched in print culture, all the while striving to reformulate the meaning of the book. From this cultural perspective, literature using new technologies appears to realize its "revolutionary" potential most fully not only through the change in medium and consequent reference to another socio-cultural order, but also as a result of exploiting various semiotic systems.

The aim of this essay is to present the state of research on electronic literature in Poland, taking various approaches and theories into account. This literature was described differently in the first phase of its development, as it was then strongly influenced by postmodern theories that did not allow it to be considered in terms of cultural changes; the second stage referred

24 Andrzej Dróżdż, *Od liber mundi do hipertekstu. Książka w świecie utopii* (Warszawa: Biblioteka Analiz, 2009), 75.

25 Ibid., 253-259.

26 See Mariusz Pisarski, *Remediacja*, accessed April 1, 2014, http://www.techsty.art.pl/hipertekst/teoria/remediacja.htm; Concept introduced by Jay D. Bolter and Richard Grusin, *Remediation. Understanding New Media* (Cambridge, MA: MIT Press, 1999).

27 Ibid., 22.

28 Grzegorz Jędrek, "Zmiana nośnika czy zmiana systemu? O dwóch manifestach, jednej rewolucji i cyberpoezji," *Fragile* 2 (2013): 62.

to media studies and cultural studies in perceiving digital texts as "deep structure."[29] It is necessary to present the state of research, fourteen years after the concept of the "liternet" was coined, to indicate the inconsistencies of analyses, doubts of scholars and areas not yet covered by Polish theoreticians. Rather than a chronological order, this presentation concentrates on ordering specific areas and theoretical concepts.

Terminological Ambiguities

In order to analyze the relationship between literature and new media it is necessary to first indicate the areas of research and related issues. Terminological ambiguities result mostly from mismatches between the name and the description of the projects. The confusion in defining this field results from the different interpretations of what is text, writing and literature, as well as inconsistencies in naming; above all from, including all literary productions linked in any way to new media in one category. This results in a failure to discern the difference between digitalized and digital literature.[30]

The first attempt to pinpoint the new phenomena was the coining of the notion "liternet," to refer to all connections between literature and the internet. *Ha!art* magazine organized an academic session on literary and media studies at the ATM Gallery, the outcome of which was the publication *Liternet. Literatura i Internet* [*Liternet: Literature and the Internet*]. Marecki defined the expression as follows:

> It encompasses the broad phenomenon of "online literature," meaning literature that either previously existed in printed form and for promotional, archival or distribution purposes has been put online, or made its first appearance in digital form, but there is nothing to stop you from looking at it on a piece of paper [...]. On the other hand there is the phenomenon of "web literature," that is a still rather small fringe of art that establishes its existence in the internet medium and would lose a great deal, if not everything, if published in the traditional method.[31]

The divisions within "liternet" introduced at this time were supposed to demonstrate the differences resulting from the influence of the internet

29 Mariusz Pisarski's term: "Pod warstwą szkła i kryształu. Jak się czyta tekst cyfrowy," *Dekada Literacka* 1/2 (2010): 26.

30 This difference is highlighted by theoreticians of electronic literature including N. Katherine Hayles: *Electronic Literature: What Is It?*, 2007, accessed April 2, 2014, http://eliterature.org/pad/elp.html

31 Piotr Marecki "Liternet.pl," in *Liternet.pl*, 313.

and of changes taking place. With the benefit of hindsight, we can observe that the name "liternet" has not caught on as it limits the field solely to the internet, rather than to new media more generally. The two terms that Marecki proposes – "literature on the internet" and "internet literature" – are also not used in academic discourse; yet they indicate significant areas of research which have with time acquired different names.

According to Marecki, "literature on the internet" meant publication online, self-publishing, e-commerce, archiving, internet periodicals and e-books. The category also included publishing, distribution, communication and the broad area of online literary life. In 2010, the editorial of an issue of *Dekada Literacka* discussed the relations between literature and new media; Anna Pochłódka led the discussion, mentioning the three most important problem areas. The first concerned the very structure of the literary work, modified by "new means of expression and technical possibilities." The second covered the question of the circulation of literary texts, and the third referred to the question of evaluating texts appearing online, taking into consideration the lack of hierarchy on the internet and the associated doubts concerning the status of people publishing online.[32] On the one hand, this issue expanded the research problem, using the term "literature and new media," but on the other hand, it would seem that progress had reverted to regression, as speakers used this expression to describe all relations without distinguishing the division from eight years previously. Małgorzata Janusiewicz's recent publication on "literature in the internet era" also fails to contribute to the development of the definition. She identifies three forms: traditional (literature published online, imitating the traditional form), e-books, and e-literature (new literary genres).[33]

"Literature on the internet" implied above all a traditional form of texts not radically different from paper form. According to the criterion of the possibility to publish in print form, therefore, blogs can also be counted as "literature on the internet,"[34] rather than "internet literature," a category in which Marecki included them.

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32 "Literatura a nowe media" – editorial discussion with Anna Łebkowska, Krzysztof Uniłowski, Krystyna Wilkoszewska. Discussion led by Anna Pochłódka, *Dekada Literacka* 1/2 (2010): 7-8.

33 Małgorzata Janusiewicz, *Literatura doby Internetu. Interaktywność i multimedialność tekstu* (Kraków: Universitas, 2013), 37.

34 Evidence for this is "blooks," a portmanteau of book and blog, meaning blogs whose content is published in the form of a printed book. See Sylwia Miszczak, Andrzej Miszczak, "Blooki: z sieci na papier," *Biuletyn EBIB* [electronic document] 8 (2007), accessed April 3, 2014, http://www.ebib.info/2007/89/a.php?miszczak_miszczak

Based on these terminological complexities, we can propose distinguishing two research fields within "literature on the internet." The first domain concerns the development of literary communication under the influence of digital media and contains issues connected to the relations between offline and online literary circulations, changes in publishing, self-publishing, issues of distribution, e-books, the question of copyright and creative commons. Also relevant is internet literary life,[35] justifying the appearance of a new space for literature to function. This encompasses the following issues: publication on the internet, online magazines, literary web portals, personal sites, internet literary criticism and the status of the writer on the web.

The second domain is the aforementioned electronic literature, including digitalized works[36] and textual realizations not necessarily considered as literary, since, as researchers rightly ask, "Why look for literary genres in what is written online?"[37] Electronic writing, which includes blogs, fan fiction, reviews, emails and works published on literary websites, is analyzed from various perspectives such as genealogy,[38] semiotics,[39] media studies[40] or communications.[41]

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35 Maciej Maryl, *Życie literackie w sieci. Pisarze, instytucje i odbiorcy wobec przemian technologicznych* (Warszawa: Wydawnictwo IBL, 2015).

36 On the digital translation of a text, see Maciej Maryl, "Reprint i hipermedialność – dwa kierunki rozwoju literatury Cyfrowej," in *Tekst (w) sieci*, ed. Anna Gumkowska, vol. 2 (Warszawa: Wydawnictwa Akademickie i Profesjonalne, 2009), 83-91.

37 Anna Gumkowska, Maciej Maryl, Piotr Toczyński (collaboration), "Blog to... blog. Blogi oczyma blogerów. Raport z badania jakościowego zrealizowanego przez Instytut Badań Literackich PAN i Gazeta.pl," in *Tekst (w) sieci*, vol. 1, 298.

38 On "multimedia genology" see Edward Balcerzan, "W stronę genologii multimedialnej," in *Polska genologia literacka*, ed. Danuta Ostaszewska and Romuald Cudak (Warszawa: PWN, 2007), 269-287. On genres from a transmedia perspective: Maciej Maryl, "Konwergencja i komunikacja: gatunki wypowiedzi na stronach internetowych pisarzy," *Zagadnienia Rodzajów Literackich* 55 (2) (2012): 29-51; Marta Więckiewicz, *Blog w perspektywie genologii multimedialnej* (Toruń: Wydawnictwo Adam Marszałek, 2012). Generic analysis is exemplified by considering emails as the continuation of epistolary novels starting from the 18th century: Joanna Wrycza, *Galaktyka języka Internetu* (Gdynia: Novae Res, 2008), 49-59.

39 Ewa Szczęsna, "Wprowadzenie do poetyki tekstu sieciowego," in *Tekst (w) sieci*, vol. 1, 67--75; Ewa Szczęsna, "Poetyka w dobie konwergencji," *Zagadnienia Rodzajów Literackich* 55 (2) (2012):11-27.

40 See Monika Górska-Olesińska, *Słowo w sieci. Elektroniczne dyskursy* (Opole: Wydawnictwo UO, 2009), 41-56.

41 The communications approach: Agata Sikora, "E-mail – między listem a rozmową," in *Tekst (w) sieci*, vol. 1, 245-252; Agnieszka Dytman-Stasieńko, "Newspoetry – literacki

According to Marecki, "internet literature" concerns works that came about on the internet and, owing to their hypertextual construction, cannot be translated into printed form. Today the concepts of "electronic literature"[42] or "digital literature"[43] tend to be used. Unlike texts which are digitalized, digital literature is "born digital" and created using a computer, designed to be read (usually) on a computer screen.[44] Digital literature has many variants[45] – from hyperfiction, via cyber-poetry, to interactive installations – and raises a number of doubts as to how literary[46] works should be regarded. As a result, digital literature is described in various categories depending on the methodology used. Digital works from the textual perspective are referred to as the "art of the word,"[47] in media studies as the "object of new media"[48] or as "interface literature,"[49] or in communications terms as a "form of artistic

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cyberaktywizm?," in *Od liberatury do e-literatury*, ed. Edward Wilk and Monika Górska-Olesińska (Opole: Wydawnictwo UO, 2011), 137-146; Magdalena Kamińska, "Ta grzeszna miłość jest dziką siłą. Internetowa fanfikcja w kulturze polskich nastolatek," in *Niecne memy. Dwanaście wykładów o kulturze Internetu* (Poznań: Galeria Miejska Arsenał, 2011), 165-190.

42 A definition of electronic literature is available on the website of the Electronic Literature Organization: *What is e-lit?*, accessed April 1, 2014, http://eliterature.org/what-is-e-lit/ ELO

43 The publications in which the term "digital literature" appears include *Reading Moving Letters. Digital Literature in Research and Teaching*, ed. Roberto Simanowski, Jörgen Schäfer, Peter Gendolla (Bielefeld: transcript Verlag, 2010).

44 Hayles, *Electronic Literature: What Is It?*

45 Małgorzata Janusiewicz mentions some seventeen different versions of electronic genealogical literature: Janusiewicz, *Literatura doby Internetu*, 40.

46 The first attempt to describe the literary nature of digital works was made by Emilia Branny-Jankowska, who introduced the category of the "literary promise": "Obietnice poezji elektronicznej," *Dekada Literacka* 1/2 (2010): 52-61; Emilia Branny, "Dlaczego klikamy? Lektura a pragnienie," in *Tekst (w) sieci*, vol. 2, 153-162.

47 The textological approach accompanies the publication *Tekst-tura*. The concept of electronic literature as the art of the word also appears in Agnieszka Przybyszewska, "Nowa? Wizualna? Architektoniczna? Kilka słów o tym, co może literatura w dobie Internetu," in *e-polonistyka*, 44.

48 The use of the concept of the "digital object" to describe digital works is visible in Urszula Pawlicka, *(Polska) poezja cybernetyczna. Konteksty i charakterystyka* (Kraków: Korporacja Ha!art, 2012).

49 Sebastian Strzelecki makes use of the notion of "interface literature" to refer to Manovich's differentiation into content and interface and their identified mutual dependencies: Sebastian Strzelecki, "Efekty interfejsu hipertekstów literackich. Perspektywy badawcze," in *Tekst (w) sieci*, vol. 2, 141-152.

expression."[50] Emilia Branny-Jankowska, referring to the cultural studies context, describes digital literature as a project of experience.[51]

The terminological confusion is not helped by pointing to the connection of digital or electronic literature with liberature – two realizations of text employing a different medium and motivated by varying goals. Since liberature appeared, the pioneers of this approach (if we can put it this way) manifested the material nature of the book conceived as a medium, underlining its physical value, which is the works' semantic part and typographical layer. Liberature and digital literature came about in the same period when there was increased significance attached to new technologies in culture. The elevation of the book was a response to digital forms,[52] which were regarded as nonmaterial, ephemeral and short-lived. Paradoxically, the founders of liberature and researchers of hypertext pointed to a similar literary tradition, stretching from Laurence Sterne via Raymond Queneau to Italo Calvino.[53] They saw as common points a "disagreement with the traditional, linear model of literature, determined to a great extent by the qualities of the material carrier of the text. Consequently, some writers have willingly abandoned it, moving into the virtual space; others, in turn, have started to exploit it creatively and modify its features."[54] The confusion was further deepened[55] by Mariusz Pisarski's proposal of the concept "e-liberature"[56] to refer to Radosław

50 Łukasz Gołębiewski describes cybernetic poetry as a "form of expression" reaching for different aesthetic planes than traditional poetry: Łukasz Gołębiewski, *Śmierć książki. No future book* (Warszawa: Biblioteka Analiz, 2008), 45.

51 Emilia Branny-Jankowska, "Rytm jako kategoria opisu e-literatury," in *Liberatura, e-literatura i... Remiksy, remediacje, redefinicje*, ed. Monika Górska-Olesińska (Opole: Wydawnictwo UO, 2012), 141.

52 Fajfer, "Liberatura. Aneks," 16.

53 Roman Bromboszcz accused liberatic writers of "searching through literary tradition" and calling the works they found "liberature," ignoring their attachment to concrete phenomena, e.g. the experimental novel (Roman Bromboszcz, "Poezja cybernetyczna, hipertekst, liberatura, poezja neolingwistyczna. Geneza i struktura nowych zjawisk w literaturze polskiej," in *Od liberatury do e-literatury*, ed. Eugeniusz Wilk and Monika Górska-Olesińska (Opole: Wydawnictwo UO, 2011), 60.

54 Fajfer, "Liberature: Hyperbook in the Hypertext Era," 4.

55 The titles of publications only add to the interpretive ambiguity, e.g. *Od liberatury do e-literatury* [*From Liberature to e-Literature*], which implies an evolutionary development of the given forms.

56 See Agnieszka Przybyszewska, "Niszczyć, aby budować. O nowych jakościach liberatury i hipertekstu," in *Tekst-tura*, 52; Przybyszewska, "Czy (i jak) można mówić o e-liberaturze?," in *e-polonistyka 2*, 167-177.

Nowakowski's hypertext *Koniec świata według Emeryka* [*The End of the World According to Emeryk*], and thus mixing the characteristics of liberature – the essence of which was the physical book – with those of hypertext realized in the digital space. Discussing the sense of this assertion, Agnieszka Przybyszewska not only concludes that liberature and e-literature have much in common,[57] but also introduces the concept of "liberacy"[58] to refer to all works characterized by their visual nature and the significance of typography. As a result of moving from "liberature" towards "liberacy," Przybyszewska applies it to describing digital literature, concluding that electronic literature can be more liberary than liberature itself.[59] Examining digital literature from the aesthetic point of view means that we cannot discern its "deep" structure – the layer of code that gives it its digital character and thus raises important research opportunities. The most important doubts concerning liberature as a form of digital literature are: 1) the aesthetic analysis limited exclusively to typography and the spacing of text;[60] 2) the transparency of the medium – although liberature emphasizes the materiality of a book, the medium ceases to fulfill a constitutive function at the point where similarities with electronic literature arise; 3) calling 20th-century avant-garde works liberature while at the same time pointing to their common revolutionary and experimental value is erroneous because, as Joanna Frużyńska notes, "the non-linear novel grew out of opposition to the convention of writing and print,"[61] whereas liberatic writers are at the opposite extreme, affirming the physicality of the book; and 4) the use of new and often inadequate

57 Przybyszewska, "Nowa? Wizualna? Architektoniczna?," 45-47; Agnieszka Przybyszewska "Daleko czy jednak blisko? O tym, co łączy Liberatów i e-literatów," in *Od liberatury do e-literatury*, 31.

58 "Literary works that can be regarded as liberary are those in which the words mean not only on the basis of arbitrary relations resulting from the symbolic character of the language. Their semantics are also created jointly by spatial, material, visual and all kinds of other qualities of notation resulting from updates to the possibilities of the medium in which the transmission is created," ibid., 36-37.

59 Przybyszewska, "Nowa? Wizualna? Architektoniczna?," 49.

60 Proof of examination of both forms of literature from an aesthetic and spatial point of view is a comparison of B. S. Johnson's unbound book *The Unfortunates* with Camille Utterback and Romy Achituv's interactive project *Screen*, to ultimately ascertain that they use the same processes and transmit the same contents (Agnieszka Przybyszewska, "Książkowe interfejsy. Liberatura – przekaz grafemiczny w postmedialnym świecie konwergencji?," in *Liberatura, e-literatura,* 37-38.

61 Joanna Frużyńska, *Mapy, encyklopedie, fraktale. Hipertekstowe opowieści w prozie XX wieku* (Warszawa: WPUW, 2012), 30-31.

language for describing liberature, such as in the case of calling liberature "interactive."[62]

The book as medium proclaimed by liberatic writers and theoreticians of liberature is at present also acquiring the name of "interface," in accordance with post-media theories which state that reflections on the medium are being abandoned in favor of the interface and software.[63] Katarzyna Prajzner uses the term "book interface"[64] to describe the simple actions of using a book, such as opening it and turning the pages. Maciej Maryl asks whether a book is an interface or a carrier of literature, and employs the term "interface" with reference to the theory of Lev Manovich to point to a host of external conditions, socio-cultural changes determining the way in which a book is received and evaluated.[65] Przybyszewska, meanwhile, calls the book an interface outright, using this concept to describe liberature, which, she writes, "begs" to be perceived as such.[66] Once again comparing liberature with digital literature, she cites the interface as a common feature of the two, which she understands as an "active mechanism of the novel,"[67] treating the digital code metaphorically and bringing it to the liberature table. Whereas Maryl interprets the significance of the interface in its actual communicative aspect, Przybyszewska uses it to describe the traditional questions of ontology and the fusion of structure with meaning.

Methodological Problems

The terminological ambiguities, I have noted above, result from the use of different languages as well as from methodological pitfalls.[68] We can identify four

62 Fajfer, "Liberatura. Aneks," 21. Mariusz Pisarski abandons the concept of interactivity in his characterisation of digital literature, referring rather to its responsive or participatory character: Mariusz Pisarski, *Xanadu. Hipertekstowe przemiany prozy* (Kraków: Korporacja Ha!art, 2013), 30.

63 The first book on postmedia in Poland is Piotr Celiński's *Postmedia. Cyfrowy kod i bazy danych* (Lublin: Wydawnictwo UMCS, 2013).

64 Katarzyna Prajzner, *Tekst jako świat i gra. Modele narracyjności w kulturze współczesnej* (Łódź: Wydawnictwo UŁ, 2009), 142.

65 Maciej Maryl, "Technologie literatury. Wpływ nośnika na formę i funkcje przekazów literackich," *Pamiętnik Literacki* 2 (2010): 159-160.

66 Przybyszewska, "Książkowe interfejsy," 48.

67 Ibid., 38.

68 Mariusz Pisarski's term: "Pułapki metodologiczne w badaniach nad literaturą cyfrową," in *e-polonistyka*, 77-87.

types of discourse[69] on electronic literature. The first type comprises using new language to present "old things" – an example is Andrzej Pająk's analyses of baroque poetry within the framework of combinatoriality,[70] or Agnieszka Smaga's new interpretation of Formist poetry.[71] The second type is the use of new language to describe new phenomena, based on an already developed digital theory such as Espen Aarseth's definition of cybertext.[72] The third kind is taking the language from another research discipline and applying it to new things – an illustration being the concept of noise drawn from communication theory to describe digital projects.[73] The fourth involves the use of old language for analyzing new forms – evidence of this might be Jay David Bolter's expression "writing space"[74] to refer to a computer screen.

The last discourse, owing to its use of categories and theories from traditional literature, is especially susceptible to interpretive errors resulting from failure to adapt the methodology to the object of research. It is crucial to refer to history in order to point to similar formal or narrative strategies so that one may describe contemporary phenomena in literature as well as, to quote Anna Łebkowska, "become familiar with technology with the aid of known concepts."[75] Yet highlighting the continuity between genres in the history of literature and those originating from the use of new media can also be met with accusations of misinterpretation, since the works refer to a different cultural order.

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69 I refer to Pisarski's work in ordering the languages of description: *Xanadu. Hipertekstowe przemiany prozy*, 74-76.

70 Andrzej Pająk, "Islamskie ogrody i barokowe teksty-maszyny. Porady dla hipertekstowych ogrodników," *Techsty* 4 (2008), accessed March 14, 2014, http://www.techsty.art.pl/magazyn4/artykuly/pajak/pajako1.html; Andrzej Pająk, "Na tropie dziwnych książek. Polska droga do e-literatury (od baroku do XXI wieku)," in *Od liberatury do e-literatury*, 275-282.

71 Agnieszka Smaga, "Interaktywny model percepcji odbiorczej w poezji formistycznej oraz hipertekście leksyjnym," in *e-polonistyka 2*, 135-151.

72 The theory of cybertext was discussed by Emilia Branny-Jankowska in *Cybertekst. Metodologia i interpretacja*, accessed April 1, 2014, http://www.techsty.art.pl/magazyn/magazyn7/cybertekst/index.html

73 Roman Bromboszcz, *Estetyka zakłóceń* (Poznań: Wydawnictwo Naukowe WSNHiD, 2010).

74 Mariusz Pisarski, "Pole pisma," accessed April 1, 2014, http://techsty.art.pl/hipertekst/teoria/remediacja/bolter.htm

75 Quoted in Łukasz Jeżyk, "O hipertekście na horyzoncie. Z perspektywy zamglonej. Protohipertekstualność na przykładzie *Jeśli zimową nocą podróżny* Italo Calvino," in *Tekstura*, 63.

Janusiewicz, the author of one of the first monographs devoted to internet-era literature in Poland, analyses the phenomenon from the angle of literary studies at the expense of theories from other fields. She argues that doubt over research methods is not concerned with whether new-media literature can be described with the aid of traditional categories, but "which terms should be used [...] to be precise and not reach for concepts that belong to other areas."[76] Yet this position leads Janusiewicz to many methodological and interpretive ambiguities, as well as those resulting from using criteria meant for traditional literature, or even no longer functioning in literary discourse, to assess digital literature.[77]

Janusiewicz alludes to postmodernism, including the Borgesian category of the labyrinth and referring to the text in Barthian terms, characterizing digital works as follows:

> Sometimes readers themselves, encouraged by the author who is the designer of a stroll through hyperlinks, become authors of an excerpt, or commentary, thereby influencing the shape and style of the work as a whole. Yet, most remarkably, in a sense the text does not exist, as it is only a set of electrical impulses.[78]

References to 20th-century theories were representative of the first stage[79] in the development of digital literature, dominated by such theoreticians as Umberto Eco (the category of the open work), Roland Barthes (the slogan

76 Janusiewicz, *Literatura doby Internetu*, 8.

77 Summarizing her analysis of new-media literature, Janusiewicz writes, "At the same time there is the world of dialogue, of group creation, of the sense of the reader's agency. Similar processes occur as with printed literature, with two polarizing streams: demanding, high-brow literature, along with superficial, easy and gaudy literature, like tabloids. The Polish-language literary internet has not yet lost a certain elitism, still challenging its readers and demanding competences (both literary and technological), but this is because the average conscious Polish internet user (disregarding school use) is still someone with higher education. These typical characteristics of e-literature are still more characteristic of countries of rapid technological growth, but they are now becoming more noticeable here as well." Ibid., 203-204.

78 Ibid., 16.

79 The stages of research on digital literature here are based on: Marie-Laure Ryan, "Introduction," in *Cyberspace Textuality. Computer Technology and Literary Theory*, ed. Marie-Laure Ryan (Bloomington: Indiana University Press, 1999), 16; Astrid Ensslin and Alice Bell, "New Perspectives on Digital Literature: Criticism and Analysis," *Dichtung digital,* 2007, accessed January 20, 2014, http://dichtung-digital.mewi.unibas.ch/editorial/2007.htm; Frużyńska, *Mapy, encyklopedie, fraktale*, 27-31.

proclaiming the death of the author), Jacques Derrida (deconstruction), Gilles Deleuze and Félix Guattari (the rhizome motif), Gérard Genette (intertextuality and hypertextuality), and Mikhail Bakhtin (dialogicality and multivocality). Mariusz Pisarski stripped digital literary theory of the false multiplication of postmodernist angles, claiming that the descriptions of text drawing from Barthes's and Derrida's ideas were "out of context" and misunderstood.[80] Pisarski distinguishes postmodernist text, characterized by "separating the text from the work," from digital hypertext, which aims to restore the text to the work. This relationship between the work and the text is meant to emphasize the significance of the condition of the material and the function of invisible layers controlling the behavior of the text.

Initial attempts to describe electronic literature treated the medium in a transparent fashion, paying no heed to the processes of programming a work, its "coded" structure and the close relationship with the digital medium. The theories of Landow[81] and Bolter[82] were dominated by thinking in terms of traditional literature theories and resulted from an optimistic approach to new technologies as making it possible to realize what the authors of "proto-hypertexts" were unable to do on a sheet of paper.

The second wave of analyses of digital literature took its tools from other fields: media studies, communications and information. Aarseth's 1997 publication *Cybertext*[83] was groundbreaking, not only proposing a new typology of text but above all offering new approaches and categories that were up to the task of describing digital works. Aarseth is responsible for the image of a text as a "machine for producing and consuming signs," made up of three elements: the verbal sign, medium and operator.[84] This theory was the first to consider a text in terms of its relationship with the layer of code and the medium. Alongside Aarseth, Marie-Laure Ryan was another important theoretician[85] who critically invoked Landow's theory, disputing the thesis

80 Pisarski, *Xanadu. Hipertekstowe przemiany prozy*, 19-28.

81 George P. Landow, *Hypertext: the Convergence of Contemporary Critical Theory and Technology* (Baltimore: Johns Hopkins University Press, 1992).

82 Jay David Bolter, *Writing Space. The Computer, Hypertext, and the History of Writing* (Mahwah, NJ: Lawrence Erlbaum Associates, 1990).

83 Espen Aarseth, *Cybertext. Perspectives of Ergodic Literature* (Baltimore: Johns Hopkins University Press, 1997).

84 Emilia Branny, "Dlaczego klikamy? Lektura a pragnienie," in *Tekst (w) sieci*, vol. 2, 153-157.

85 Marie-Laure Ryan, *Narrative as Virtual Reality. Immersion and Interactivity in Literature and Electronic Media* (Baltimore: Johns Hopkins University Press, 2011).

of the reader's power over the author and the generative nature of hypertext. Ryan introduces a narratological angle, referring among others to Manovich's theory of the work of art as database.

It is hard to identify these two periods of development of the theory of digital literature in the world in the history of Polish electronic literature, since the phenomenon only arrived here during the second wave in the West.[86] In the field of Polish research, we can distinguish several ways of presenting electronic literature and areas that are specifically covered by theoreticians.

Research Questions and Areas

In Poland, the areas of interest include digital literature from the perspective of literary tradition,[87] different media and the relations between them,[88] literary communication,[89] semiotics,[90] aesthetics,[91] structure of the text and semantics,[92] the process of digital-text reception[93] and digital translation (translating foreign-language hypertexts[94]

86 More about a history of electronic literature: Urszula Pawlicka, *Visualizing Electronic Literature Collections*, "CLCWeb: Comparative Literature and Culture" 18.1 (2016), accessed June 1, 2016, http://dx.doi.org/10.7771/1481-4374.2902; Urszula Pawlicka, *Towards a History of Electronic Literature*, "CLCWeb: Comparative Literature and Culture" 16.5 (2014), accessed June 1, 2016, http://dx.doi.org/10.7771/1481-4374.2619

87 Pająk, "Na tropie dziwnych książek"; Pawlicka, *(Polska) poezja cybernetyczna*; Frużyńska, *Mapy, encyklopedie, fraktale*.

88 Przybyszewska, "Książkowe interfejsy"; Bromboszcz, "Poezja cybernetyczna."

89 Piotr Sitarski, *Rozmowa z cyfrowym cieniem. Model komunikacyjny rzeczywistości wirtualnej* (Kraków: Rabid, 2002).

90 Ewa Szczęsna, "Tekst wieloznakowy w przestrzeni mediów cyfrowych. U podstaw poetyki semiotycznej," *Przegląd Humanistyczny* 4 (2013): 19-27. *Przekaz digitalny. Z zagadnień semiotyki, semantyki i komunikacji cyfrowej*, ed. Ewa Szczęsna (Krakow: Universitas, 2015).

91 Przybyszewska, "Nowa? Wizualna? Architektoniczna?"; Pawlicka, *(Polska) poezja cybernetyczna*, 41-89.

92 Emilia Branny, "Powieść a powieść hipertekstowa," in *e-polonistyka*, 19-27; Pisarski, *Xanadu. Hipertekstowe przemiany prozy*; Sonia Fizek, "Testowanie 'Hegiroskopu' Stuarta Moulthropa," *Dekada Literacka* 1/2 (2010): 38-44; *Hipertеksty literackie. Literatura i nowe media*, ed. Piotr Marecki and Mariusz Pisarski (Kraków: Korporacja Ha!art, 2012).

93 Mariusz Pisarski, "Analiza i wartościowanie dzieła literatury," in *Liberatura, e-literatura*, 129-139.

94 Fizek, "Testowanie 'Hegiroskopu' Stuarta Moulthropa"; Mariusz Pisarski, "Nowe pole adaptacji i translacji tekstu w mediach," *Fragile* 3 (2013): 22-25.

and digital adaptations[95]). In Poland these fields of interest are discussed with reference to two forms of electronic literature: hypertext and cybernetic poetry.

Hypertext is the main area of research and the most frequently cited category on account of its catch-all definition, which refers both to the literary tradition and to technological concepts. Researchers use this term in varying contexts, depending on their selected methodology.[96] Hypertext is therefore described in textological terms, alluding among others to Genette's theory of hypertextuality. Based on this premise, hypertext is presented as the structure of a text and the order of ideas.

Other theoreticians consider the concept from a technological perspective, referring to a concept created by Ted Nelson who coined the phrase "nonsequential writing" [97] in 1965 – the information technology approach determines the analysis of hypertext from the point of view of the generated construction and the layer of operation. Hypertext then appears as a system managing the text, and is sometimes also regarded as a research method.[98]

Roman Bromboszcz, a founder of the Perfokarta group, defines cybernetic poetry as "activity closely linked to cybernetics and computers. I was interested in poetry's diminished inspiration and tried to create texts that we can treat as machines, a poetics tackling problems related to technology, especially artificial intelligence, automation, robotics, as well as questions concerning knowledge-power relationships, censorship, and so forth."[99] Cybernetic poetry is characterized by generativity, automation, combinatorics, transcoding, polysemiotics, use of computer art, critique of new technologies

95 Dorota Sikora, "Remediacja – cyfrowa adaptacja dzieł literackich," in *e-polonistyka*, 53-62; Ewa Szczęsna, Urszula Pawlicka and Mariusz Pisarski, "Przekład hipertekstowy. Teoria i praktyka," *Rocznik Komparatystyczny* 5 (2014): 373-394. One of the Polish digital adaptations is project *Oczy tygrysa (Eyes of the Tiger)*, created by Urszula Pawlicka and Łukasz Podgórni (Kraków: Korporacja Ha!art, 2012), accessed April 1, 2014, http://ha.art.pl/czyzewski/. It is an online flash adaptation of the poems of an avant-garde poet (formist) from the interwar period, Tytus Czyżewski. This project is included in the Electronic Literature Collection vol. 3 (2016), accessed April 1, 2017, http://collection.eliterature.org/3/work.html?work=oczy-tygrysa.

96 For more on defining hypertext: Frużyńska, *Mapy, encyklopedie, fraktale*, 11-12; Pisarski, *Xanadu. Hipertekstowe przemiany prozy*, 11-19.

97 Ibid., 17.

98 Pająk's conception of hypertext as a research method is close to the premises of digital humanities (Andrzej Pająk, "Hipertekst w badaniu literatury," in *e-polonistyka*, 63-75).

99 Roman Bromboszcz, "Polipoezja, cyberpoezja, performance. Zarys relacji pomiędzy teorią i praktyką," in *Digitalne dotknięcia*, 99.

and adopting various aesthetics of new media: disturbance, remixing and glitch.[100] The links it forges with other artistic fields are exemplified by the fact that digital works are not so much known as "poems," but rather as "objects," "information to execute" or "process." This also demonstrates the use of research methods from theories of new media,[101] information,[102] cybernetics[103] and digital culture.[104] Owing to its transmedial character encompassing poetry, interactive art, computer art, performance, it poses questions as to the limits of poetry and how literary qualities can be attained. The effect of the nomadic[105] features of digital poetry is that descriptions of it invoke both the artistic tradition, based on the artists' inspirations, and the literary tradition, to which the digital poets themselves refer to or in which we can find similar strategies and styles. As a result, names from music (John Cage, Pierre Schaeffer), the literary avant-garde (Bruno Jasieński, Tytus Czyżewski), and generative and computer art (Stelarc, Wojciech Bruszewski[106]) are all invoked.

Cybernetic poets managed to do what neolinguistics failed to do: to truly elevate the digital form[107] and to cyclically organize performative appearances

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100 On the characteristics of cyberpoetry see ibid., 93-114; *Poezja cybernetyczna – samookreślenie*, accessed April 1, 2014, http://perfokarta.net/root/samookreslenie.html Roman Bromboszcz, Tomasz Misiak and Łukasz Podgórni, *Książka i co dalej 7* (Poznań: Galeria AT (ASP), 2008); Pawlicka, *(Polska) poezja cybernetyczna*, 41-89.

101 See Manovich, *The Language of New Media*.

102 See John R. Pierce, *An Introduction to Information Theory: Symbols, Signals and Noise* (Mineola, NY: Dover Publications, 1980).

103 See Boris Biryukov and Efim S. Geller, *Cybernetics in the Humanities* (Moscow: Nauka, 1973); Piotr Sienkiewicz, *Poszukiwanie Golema: o cybernetyce i cybernetykach* (Warszawa: Krajowa Agencja Wydawnicza, 1988).

104 See Józef Kossecki, *Cybernetyka kultury* (Warszawa: PIW, 1974); Charles Jonscher, *The Evolution of Wired Life* (New York: John Wiley & Sons, 1999); Zawojski, *Cyberkultura.*

105 On the nomadic nature of digital poetry: Monika Górska-Olesińska, "Poezja nomadyczna," in *Sztuki w przestrzeni transmedialnej*, 210-220.

106 Bruszewski's discovered computer and generative activity was seen as a precursor to the practices of digital literature, especially cybernetic poetry: Piotr Marecki, "'Obsesyjna antycypacja' – Wojciech Bruszewski jako prekursor literatury nowych mediów w Polsce," *Zagadnienia Rodzajów Literackich* 2 (2012): 235-246; Tomasz Załuski, "Remediacje słowa – remediacje doświadczenia. Rozum medialny i maszyny tekstualne w twórczości Wojciecha Bruszewskiego," in *Liberatura, e-literatura,* 85-106.

107 The elevation of the digital form is not the same as abandoning printing entirely – the authors also have paper publications to their name: Roman Bromboszcz, *digital.prayer* (Warszawa: Staromiejski Dom Kultury, 2008); *u-man i masa* (Kraków: Korporacja Ha!art,

combining elements of poetry with computer art and music. The postulates from the neolinguists' manifesto could only be achieved when the medium changed, and language and digital acts realizing the proposed values were employed. As Leszek Onak suggests, "programming language is the language that poets always wanted to speak – a creating language."[108]

Reviewing electronic literature studies in Poland, we can identify four research trends.[109] The first is based on information-technology and culture studies, studying new forms of text arising from informational exchanges, as well as the development of new media and related practices. This movement is linked with cultural studies, which studies the progress of socio-cultural changes influencing the media. We can identify the following areas within this trend: the development of media and cultural changes (Andrzej Dróżdż, Grzegorz Godlewski, Maryla Hopfinger), digital communication and new media theories (Piotr Celiński, Ryszard Kluszczyński, Piotr Sitarski, Ewa Wójtowicz, Piotr Zawojski), the medium and textual changes (Emilia Branny-Jankowska, Monika Górska-Olesińska, Małgorzata Janusiewicz, Maciej Maryl, Mariusz Pisarski, Agnieszka Przybyszewska), the comparativist approach, comprising both the historical angle and questions concerning translation of digital works (Emilia Branny-Jankowska, Mariusz Pisarski, Andrzej Pająk, Urszula Pawlicka), and finally reference to cultural contexts covering the issue of the material nature of objects and the relationship between people and new technologies.[110]

2010); *Hz* (Poznań: Wydawnictwo WBPiCAK, 2011); *918-578* (Kraków: Korporacja Ha!art, 2012); Łukasz Podgórni, *noce i pętle* (Kraków: Korporacja Ha!art, 2010); *Skanowanie balu* (Kraków: Korporacja Ha!art, Hub Wydawniczy Rozdzielczość Chleba, 2012); Leszek Onak and Łukasz Podgórni, *wgraa* (Kraków, Internet: Hub Wydawniczy Rozdzielczość Chleba, Śródmiejski Ośrodek Kultury w Krakowie, 2012).

108 Quoted in Jędrek, "Zmiana nośnika czy zmiana systemu?,"62.

109 I am referring to the proposal of Emilia Branny, who in turn quotes the Czech researcher Jakub Macek in dividing new-media discourse into the following streams: utopian, information, anthropological, epistemological, semiotic and narratological (cited in Pisarski, *Xanadu. Hipertekstowe przemiany prozy*, 60-70). I modify these areas, in particular emphasizing the departure from the name "anthropological stream." The names in brackets are both those whose theories are a foundation for consideration of digital literature and those representing a given trend in analyses of digital literature.

110 Research on digital literature in this context in Poland is only now being indicated. We can point to Roman Bromboszcz, "Splot umysłu z oprzyrządowaniem i oprogramowaniem. Eksplikacja negatywistyczna," in *Mindware. Technologie dialogu*, ed. Piotr Celiński (Lublin: Warsztaty Kultury/WSPA, 2012), 87-100, and Urszula Pawlicka, "Na marginesie rozważań o literaturze cyfrowej w kontekście posthumanizmu," *Wakat* 3/4 (2013): 74-75.

The second is semiotic, focusing on the analysis of signs and symbols in digital texts and the question of their genealogy (Edward Balcerzan, Anna Gumkowska, Maciej Maryl, Urszula Pawlicka, Mariusz Pisarski, Ewa Szczęsna, Marta Więckiewicz, Seweryna Wysłouch). The third area concerns taking into account new digital realizations and involves analyzing them using new tools without referring to any research tradition (Emilia Branny-Jankowska, Mariusz Pisarski, Piotr Sitarski). The fourth is the narratological one, represented internationally by Marie-Laure Ryan and focused on the description of narration in digital literature (Emilia Branny-Jankowska, Urszula Pawlicka, Mariusz Pisarski).

Despite the brief history and reports of the demise of electronic literature in Poland,[111] it now has a thorough analysis and theory to its name. By being open to new areas of research, theoreticians can examine this phenomenon from a broader perspective, not limiting themselves to the methods of literary studies which appear insufficient for describing transdisciplinary projects.[112] In Poland, wider research in the context of digital humanities, sensual perception, documentation and post-humanism is still lacking. The proposed areas prove that digital literature is, as Pisarski puts it, "a laboratory of all linguistic expression" and the source of the "hatching of future forms of digital communication."[113] Electronic literature understood as a manifestation of contemporary culture points to important problems in the subjects of art, science and technology, while testing future socio-cultural forms.

Translation: Benjamin Koschalka

111 Joanna Wrycza wrote in 2008 that, "It later turned out that the attempt to 'mechanise' literature in order to increase the possibilities for it to interact with the reader was wide of the mark. Many reasons can be cited for the failure of this literary phenomenon" (*Galaktyka języka Internetu*, 152).

112 Discussing the problem of literary elements in multimaterial and multimedia texts, Seweryna Wysłouch (following Ryszard Nycz) calls for transdisciplinary research, which "unlike interdisciplinary research does not exhibit the boundaries and does not concentrate solely on boundary phenomena, but by acting 'across' them it dissolves these boundaries entirely," see Seweryna Wysłouch, "Ruchome granice literatury," in *Ruchome granice literatury*, ed. Seweryna Wysłouch and Beata Przymuszała (Warszawa: PWN, 2009), 22.

113 Pisarski, *Xanadu. Hipertekstowe przemiany prozy*, 11.